34 APPENDIX 7 – CARTERTON TOWN CENTRE DESIGN GUIDELINES

34.1.1 Introduction

Carterton is situated 14 kilometres south of Masterton. It is named after Charles Rooking Carter. Originally the name 'Cartervale' was mooted. Carter was born in England and worked as an actor, an artist and served an apprenticeship as a carpenter before emigrating to New Zealand in 1850. He had worked on the Parliament building at Westminster and brought some of his patterns and used them on the Parliament House designed by William Mason for Wellington. He also built some of the first seawalls in Wellington and the first bridge over the Waiohine. The Carter Observatory in Wellington's Botanical Gardens is named after him.

The town evolved through the linking of the three settlements of Three Mile Bush, Belvedere and Clareville. Prior to 1857, the government bought sections of 60 acres or more between Greytown and Masterton, known as the Taratahi Plain block. However, most of the block fronting the Three Mile Bush road was allocated to absentee landlords and that hindered development of any settlement. The government bought the land north of the Waiohine and east of the Three Mile Bush road and south of what is now Park Road about 1856.

Where the town is now and down Belvedere Road (then Hookers Line) there were some businesses set up but it was not until the railway line and station were established in 1879 that the area became central to the town. In addition, the establishment in 1874 of Booth and Co sawmillers who had been in Ohariu Valley and had timber yards in Wellington was significant. The firm bought out several small sawmills and purchased large blocks of timbered land. By 1875, the town had established a Town Board and the borough was constituted in 1887.

There are a number of landmark buildings and sites on High Street. These include Wakelin's Mill; Carrington Park and the Band Rotunda; the Marquis of Normanby hotel; the Clock Tower; Memorial Square, the Westpac Bank. These are important "punctuations" on the Street. The hotel and bank are located on prominent corner locations. These buildings are either registered under the Historic Places Act 1993 or are listed on the District Plan as places of local historic importance. The District Plan regulates alteration or removal of these buildings.

34.1.2 Design Guide

(a) Aim

The aim of the Design Guide is to outline design principles for the design of buildings in the Central Business District (CBD) of Carterton. The intention is to generally help maintain the character of the area and ensure that any new work compliments and relates with the existing. This Design Guide provides guidelines for the maintenance and repair of existing buildings, for the construction of additions and alterations to existing buildings and for new development. The guide addresses visual rather than functional attributes of buildings.

(b) Objectives

The Guide's objectives are:

- To encourage increased community awareness of the heritage, visual and environmental qualities of the area and to promote community involvement;
- To protect and conserve buildings and structures to help enhance and retain the established character of the areas;
- To promote the town as an economic destination for locals and visitors;
- To retain as appropriate the historic character of the CBD;
- To encourage the development of the town centre as a focus of community activity and a place of public use;
- To ensure that new development is compatible with the scale, visual, aesthetic and functional attributes of existing buildings.

(c) Application and Implementation

Certain development within the Character Area will be managed to ensure the amenity values currently existing within the area are not degraded to the detriment of Carterton. The Character Area applies to the following street frontages:

- High Street (SH2) left hand side extending from Pembroke Street to and including 161 High Street North;
- High Street (SH2) right hand side extending from Holloway Street to and including 158 High Street North;
- Memorial Square – north facing frontage extending from High Street to and including 20 Memorial Square;
- All corner frontages intersecting High Street within the Character Area.

These guidelines shall apply to any development, construction, alteration or addition to building frontages (including decoration), or demolition of building frontages (provided demolition is accompanied by erection of new frontages) within this Character Area.

The District Plan provides for certain types of development within the Character Area as a Controlled Activity subject to meeting defined criteria relating to design and appearance. Where activities may not meet these criteria, they become Restricted Discretionary Activities over which Council has restricted its discretion to the intent of this Design Guide.

The application and implementation of the District Plan rules and this Design Guide is to therefore encourage building owners to conform to common design principles when undertaking development activities on buildings within the Character Area.

34.1.3 Design Guidelines

This Guide does not require replication of historic buildings and past architectural styles but encourages the use of design elements, scale and proportion, to enhance the character of the area and emphasise historic qualities.

The design of new buildings should be in harmony with the existing buildings and forms. Consideration must be given to roof type and pitch, the verandah and the rhythm of its supports and the proportions of windows and other openings.

Alterations and additions to existing buildings should not detract from the character of the building. They should compliment the original building and be sympathetic to the style and character of that building. The siting of an addition should reflect the style and character of the older building. The scale and massing of new works must recognise the scale and massing of the original.

When altering or adding to an existing building, the opportunity should be taken where possible to modify existing additions which are not sympathetic to the heritage character of both the building and the surrounding area.

The architectural or building components listed below are essential elements to ensure the historic character of the CBD is retained.

(a) Landscaping

The CBD has already been invested with a number of kerbside garden areas and of course its ubiquitous hanging baskets. These are successful. Their continuation and general maintenance will be encouraged and serviced by the District Council on an ongoing basis.

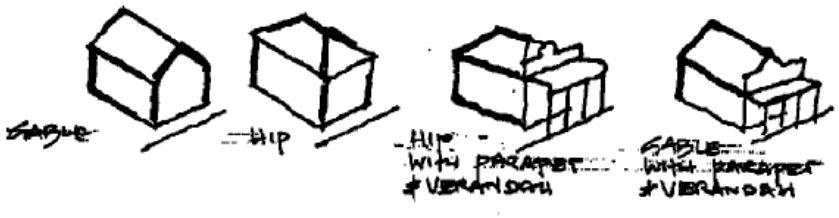
(b) Site Planning

Setbacks from the existing street frontage line should be discouraged. Where buildings may occupy more than one section, they should incorporate design elements such that they appear no wider than those implied by traditional section widths. The scale of the façade and of subdivisions must be considered. Larger buildings should attempt to recreate the narrow scale of original buildings through the treatment of façade or roof structures.

(c) Building Form including Roofs

A prime consideration is the retention and/or promotion of the current building form characteristics, especially in terms of shape, scale and proportion. Shop fronts must be contiguous; parapets and verandahs should disguise constructional form in a traditional manner. The most prominent and appropriate roof types are those with a high pitch and either a gable or hip form. Early buildings of the area use these simple roof types. More complex roof types are typically combinations of these basic forms.

Buildings should be limited to two storeys in height, except on corner sites (see below). The addition of a storey to any single storey building must, where practicable, use the original building roof or its form and direction. The roof form and pitch should at least match or closely resemble the existing. A repetition of eaves and projections enables the new roof form to relate to the existing roof.



(d) Corner Sites

Buildings on corner sites are allowed to be up to four storeys in height. Corners should be turned by an appropriately designed angled face to the corner, with preferably a principal entrance to the premises located on this angle. On occasion, a modest tower structure or other signalling device (but not a commercial sign) may be appropriate.

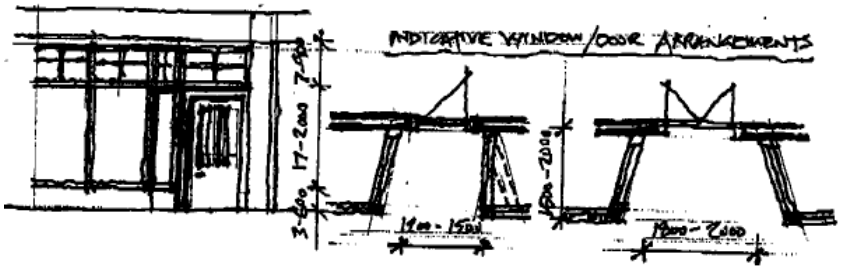
(e) Parapets

On the street frontage, gable ends are typically and traditionally covered by parapets, some plain, some decorated. The parapet disguises the gable end and provides opportunity for decoration, signage and interesting forms to be created. Parapet walls are traditionally stepped and symmetrical. Parapets are required on both single and two storey buildings (see examples below):

(f) Facades / Entrances / Display Windows

The principles of façade composition include directions with regard to window and door size, shape and type; proportions of window areas to walls; alignments of doors, windows, heads and sills; subdivisions of doors and windows. The size and proportion of existing openings (windows and doors) should be reflected in new works.

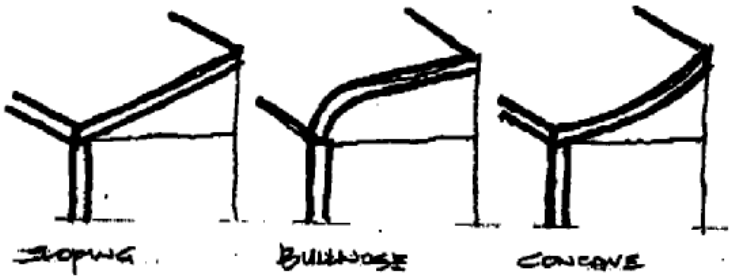
There must be entrances to all buildings on High Street from the High Street subject to traditional setback entrance forms. Glazing sizes and their extent should follow traditional forms, which generally do not include full height windows. Typically such forms include a sill and lintel supporting a window that is no less that 60 % of the total frontage area. Security grills, roller doors, sliding doors where required should be retractable or removable and not an obtrusive feature of the façade.



(g) Verandahs

Verandahs are an important feature of the streetscape. They enclose the footpath, provide shelter and protect building entrances. The design of verandahs must follow traditional forms (angled, curved, bullnose). They must include appropriate posts set close to the street edge. The spacing of posts must be designed to complement existing spacing and rhythm.

The underside of verandahs should not be lined, allowing the structure to be seen and giving more height and visual interest. Lighting should be sympathetic to traditional scale and design and wiring should be located discreetly. The extension of an existing verandah may be used to integrate the new works with the existing building.



(h) Signage

Signs are recognised as essential to any business advertising but must not be used indiscriminately or with the effect of obscuring or destroying a building's character. The size, shape, and extent of signs should be of a form that is recognisably traditional. Signage should be located on and within parapets and verandahs only. Signage may be located above verandahs but within parapet height, and may also be suspended within verandahs.

All signs must be sympathetic in scale, colour and design with amenities and historical qualities of the area. They should be made or constructed in a neat and durable manner and using appropriate materials. Support brackets shall be integral to the signage design.

(i) Materials and Details

The materials used in new construction should match as closely as possible to those used in the existing building. Elements to consider include size, style and type of finish.

The re-use of early materials, decorative features, door and windows in new works is encouraged.

Traditional construction materials in recognisably traditional forms should be encouraged, that is - timber, glass, cast iron. Use of other materials should be in a manner that does not detract from the amenity values within the Character Area. Where decoration and architectural features are used, they should follow the characteristic forms and details of the existing buildings.

(j) Colour

Colours being selected for buildings within the Character Area should generally be consistent with the range of heritage colours (Aalto Paints) as approved by the New Zealand Historic Places Trust. Colours should be selected in any combination from this palette and where appropriate be harmonious with existing buildings.

35 APPENDIX 8 – SOUTH WAIRARAPA TOWN CENTRES DESIGN GUIDELINES

35.1.1 Introduction

(a) Greytown (1854)

The first planned inland town in New Zealand, Greytown shares its cruciform layout with only one other, but is unique in that the pattern of development has left many early buildings and most historic sites readily accessible down to the late twentieth century.

Wairarapa's oldest known standing structure, dating from 1856, oldest surviving commercial structures (1865-67), and well-preserved later domestic and commercial buildings, with fine examples from each decade from 1870 to 1910, all contribute to what is claimed to be the most complete wooden Victorian main Street in new Zealand.

Just as being the birthplace of Arbor Day presupposes the existence of fine trees, Greytown being Wairarapa's first town also pre-supposes that it contained the district's first church, school, hospital - two of these three buildings still exist. Named after Governor Sir George Grey and founded on 23 March 1854, the settlement of Greytown by the Wairarapa Small Farm Association marked the first time that "workingmen and men of small means" successfully carried through the purchase and closer settlement of a large tract (25,000 acres) of rural land.

(b) Featherston (1857)

Featherston's natural advantages as a land transport crossroads and "Gateway to Wairarapa" were recognised as early as 10 years before the town was founded, within six months of the Rimutaka Hill Road being opened to wheeled traffic, in 1857. Named after Superintendent Dr Isaac Earl Featherston, the town was established by the Wellington Provincial Council, a fact commemorated by the naming of most of its earliest streets.

The crossroads pattern of development, heightened by the arrival of the railway in 1878, is still evident today with the town centre straddling both the railway line and two state highways. Fittingly, Featherston's Fell Engine Museum contains one of the only surviving examples of its kind in the world and is sited amongst the town's most charming buildings clustered around Clifford Square.

The site of Wairarapa's only militia barracks during the Maori Land Wars of the 1860s, its role as the closest servicing centre to the First World War's huge training and transit camp at Tauherenikau, along its twin status with the Belgian town of Messines, invests Featherston with an importance in New Zealand's military history.

(c) Martinborough (1885)

Established between 1881-1885 as a private land development by, and named after, Hon. John Martin MLC, Martinborough is a fine example of rural town development during the heyday of both pastoral farming and of the British Empire. Its Union Jack street layout is unique in New Zealand and shared with only one other in the world, Boston, USA.

Established on land that in 1844 was part of Wharekaka, the first sheep station in New Zealand, Martinborough shares one other important historical link with America; part of the town is also built on land that was part of Huangarua Station from where the first beef was exported to the United States in 1850.

This background of pastoral wealth, and the huge rural hinterland that the town was established to service, is evident today in such buildings as its banks, post office, library, larger commercial premises and fine surrounding examples of large late nineteenth century houses.

35.1.2 Aims

The purpose of this plan is to provide guidelines for new development and additions to existing buildings in the district and to provide details of townscape and civic improvements. In particular the Guide aims:

(i) To encourage increased community awareness of the district's intrinsic heritage, visual and environmental qualities and to promote community involvement in the conservation of these elements.

(ii) To protect and conserve buildings, structures or sites of heritage and or visual appeal and to retain the prominence of major historical elements in the district.

(iii) To recognise tourism as an important economic factor and to promote the district as a destination of historic interest and aesthetic appeal.

(iv) To retain the historic character of the district, created by elements such as:

- Original architecture;
- Historic sites, buildings and objects;
- Mature landscape;
- Rural setting;
- Scale of townships;
- Nature and containment of town centre and market place;
- Streetscape.

(v) To encourage the development of the town centre as a focus for community activity and create spaces for public use.

(vi) To ensure that new development within the district's areas of application (see Section 35.1.3 below) is compatible with the existing visual, treed and built character and to oversee and advise all changes to ensure that the above aims are considered.

35.1.3 Areas of Application

The Design Guide applies to the Heritage Precincts in Martinborough, Featherston and Greytown.

35.1.4 Buildings of Historic Interest

The buildings, listed in Appendix 1.7 of the Plan are either registered under the Historic Place Act 1993 or are buildings of local historic importance. Alteration or removal of these buildings is regulated by the Plan Rules.

35.1.5 Implementation

(a) Application

These guidelines shall apply to all new construction, alterations and additions to existing buildings; restoration and decoration including painting of existing buildings.

35.1.6 Design Guidelines for New Construction

The intention of this guide is not always to require exact replicas of historic buildings and past architectural styles, but to encourage the use of design elements to enhance the character of the district and emphasise its historic attributes.

The design of new buildings in the town centres should be in harmony with the existing historic buildings.

Where decoration and architectural features are used, they should follow the characteristic forms and details of these existing buildings.

The architectural or building components listed below are recognised as essential elements to ensure the historic character of the town centre is required.

(a) Roofs

The roof of a building reflects the period in which it was built and is one of the most important aspects of the design and appearance of historic buildings.

The most prominent and appropriate roof types are those with a high pitch and either a gable or hip form. Early buildings in the district used these simple roof types. More complex roof types were developed in later years by combining and repeating these basic forms.

Gable roof types allow the gable ends to be used as a decorative element. Traditional treatment of gable ends is quite diverse and allows for many design opportunities.

Common features include:

- Finial;
- Cornice moulding;
- Decorated barge board;
- Small centred window;
- Parapet wall.

In early buildings the roof structure did not overhang the side walls and a flush eave was formed. The gable ends of the roof were however often overhung and finished with a barge board. In later buildings boxed eaves were created by extending the ceiling joists beyond the wall frame and lining them underneath. Boxed eaves were often decorated with shaped brackets and a fascia board.

Parapet walls are most commonly built on the street front of commercial buildings in the town centre. The parapet disguises the gable end of a building and allows for decoration, signage and interesting forms to be created. Parapet walls are traditionally stepped and symmetrical.

Roof types to avoid:

- Flat;
- 'A' frame;
- Mansard;
- Low pitch.

(b) Verandahs

Verandahs are an important feature of the streetscape, enhancing the historic character of the town. Verandahs act to enclose the footpath, protecting the building's entrance and sheltering pedestrians. They also become important meeting places for people to congregate and talk. Verandahs enhance the aesthetic appeal of buildings and are a popular decorative element.

Traditional verandahs are:

- Bullnosed;
- Sloping;
- Concave.

Verandahs are supported by posts set back from the street. The Spacing of posts must be designed to ensure that a rhythm is maintained. Traditional verandah posts require decorative details at both the ground and roof junctions. These can include mouldings, gussets, turned posts and fretwork.

The underside of a verandah should not be lined, allowing the structure to be seen and giving the enclosure more height and visual interest.

Avoid:

- Cantilevered structures;
- Thin poles (steel or wood);
- Flat, boxy verandahs;
- Bracing (visible);
- Untraditional forms.

(c) Windows and Doors

Traditional windows and doors are small timber framed elements that are carefully situated to enhance the symmetry of a building. Modern technology allows many more design possibilities than in the past yet the traditional designs and proportions must still be considered.

Windows should be tall rather than wide. Bay windows and small dormer windows add visual impact and may enhance the character of a building.

Non-obtrusive skylights allow more light to enter the building without having to destroy the character of a building by adding extra windows.

Aluminium joinery can be enhanced by the use of traditional colours, finishes and timber surrounds.

Avoid:

- Security grill and mesh;

- Roller doors;
- Untraditional doors (sliding, glazed);
- Large expanses of glass (glazing bars can be used to reduce this expanse).

(d) Scale

Most buildings in the town centre are quite narrow and tall, resulting from the narrow subdivision of land along the main commercial streets. Larger buildings should attempt to recreate the tall narrow scale of original buildings through the treatment of the facade and/or roof.

(e) Colour Scheme

The colour scheme of any new building is to have regard to the colour scheme of buildings in the vicinity and also to traditional colours and the original colours of historic buildings.

(f) Services

Electrical and telephone services shall be required, where possible to be installed underground. Television and radio aerials and other similar devices are to be located so they are not visible from any point along the main street.

35.1.7 Alterations and Additions to Existing Buildings

Alterations and additions to existing buildings should not detract from the character of the building. They should compliment the original building and be sympathetic to the style and character of that building.

The guidelines for "New Construction' (see Section 32.1.6) must be considered when altering existing buildings. Listed below are further critical factors to consider.

(a) Siting

The siting of an addition should reflect the style and character of the older building. An addition should be sited to minimise the visual impact of change.

(b) Scale

The scale and massing of new works must not dominate the existing building. The addition of 'leans-to' is encouraged as a traditional practice in the development of the district. When adding an extra story to a building the existing roof should, where possible, be re-used. The addition of more height to buildings in the town centre is encouraged to help re-create the original scale of the buildings and townscape.

(c) Form

New additions should respect the existing building form. The most important aspects to consider are the roof type and pitch, the verandah and the rhythm of its supports, and the proportions of windows and other openings.

The roof form and pitch should match or at least closely resemble the existing. A repetition of eaves and projections enables the new roof form to relate to the existing roof.

The size, proportion and position of existing openings (windows and doors) should be reflected in the new works.

The extension of an existing verandah can be used to integrate the new works with the existing building.

(d) Materials

The materials used in new construction should match, as closely as possible, those used in the existing building. Elements to consider include size, style and type of finish. Colours should be selected so that they are harmonious with existing buildings - this will aid in the integration of new development with existing buildings.

The re-use of early materials, decorative features, doors and windows in new works is desirable.

(e) Existing Unsympathetic Additions

When altering or adding to an existing building, the opportunity should be taken where possible, to modify existing additions which are not sympathetic to the heritage character of both the building and the surrounding area.

(f) Verandahs in Town Centre

All buildings in the town centres shall be encouraged, at the time of construction, reconstruction or alteration, to be provided, where possible with a verandah. Verandahs must be supported by posts onto the footpath and must be designed with consideration to the historic character of both the building and streetscape.

35.1.8 Signage

Signs are recognised as being essential to business advertising but have so often been used indiscriminately and so obscured or destroyed a building's character.

(i) all signs must be sympathetic in scale, colour and design with amenities and historical qualities of the area.

(ii) all signs shall be made, erected or constructed in a neat and durable manner and in appropriate materials

(iii) brackets should become an integral part of the sign

(iv) any sign not maintained shall be repaired or secured or will be required to be removed

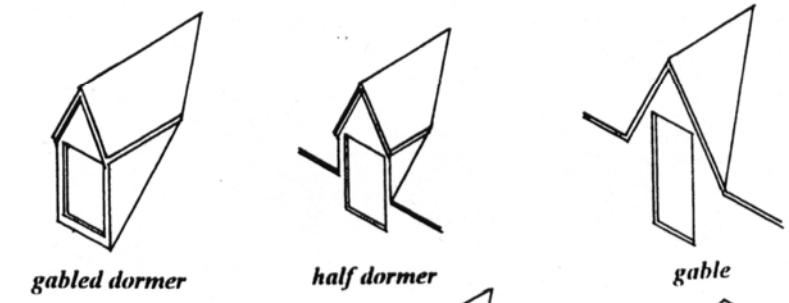
(v) signs may not be painted in fluorescent colours

(vi) signs describing particular brands of commodities shall not be fixed to buildings or verandah roofs, and where used below verandah level shall not dominate the building character

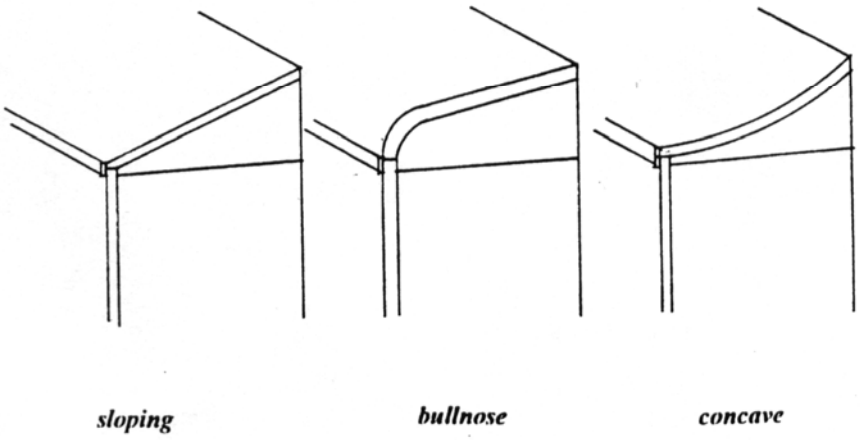
(vii) signs and murals shall not be painted on the roof of any building.

BASIC ARCHITECTURAL FORMS

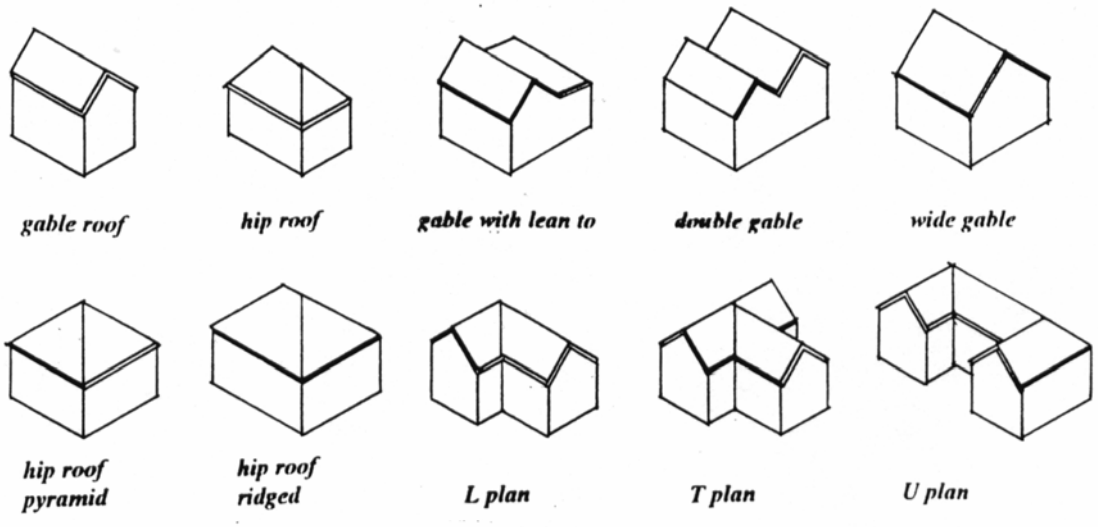
DORMER WINDOWS



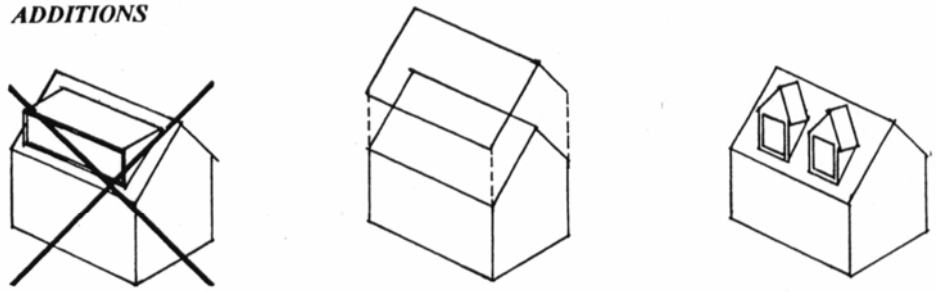
VERANDAH FORMS



ROOF FORMS



ADDITIONS

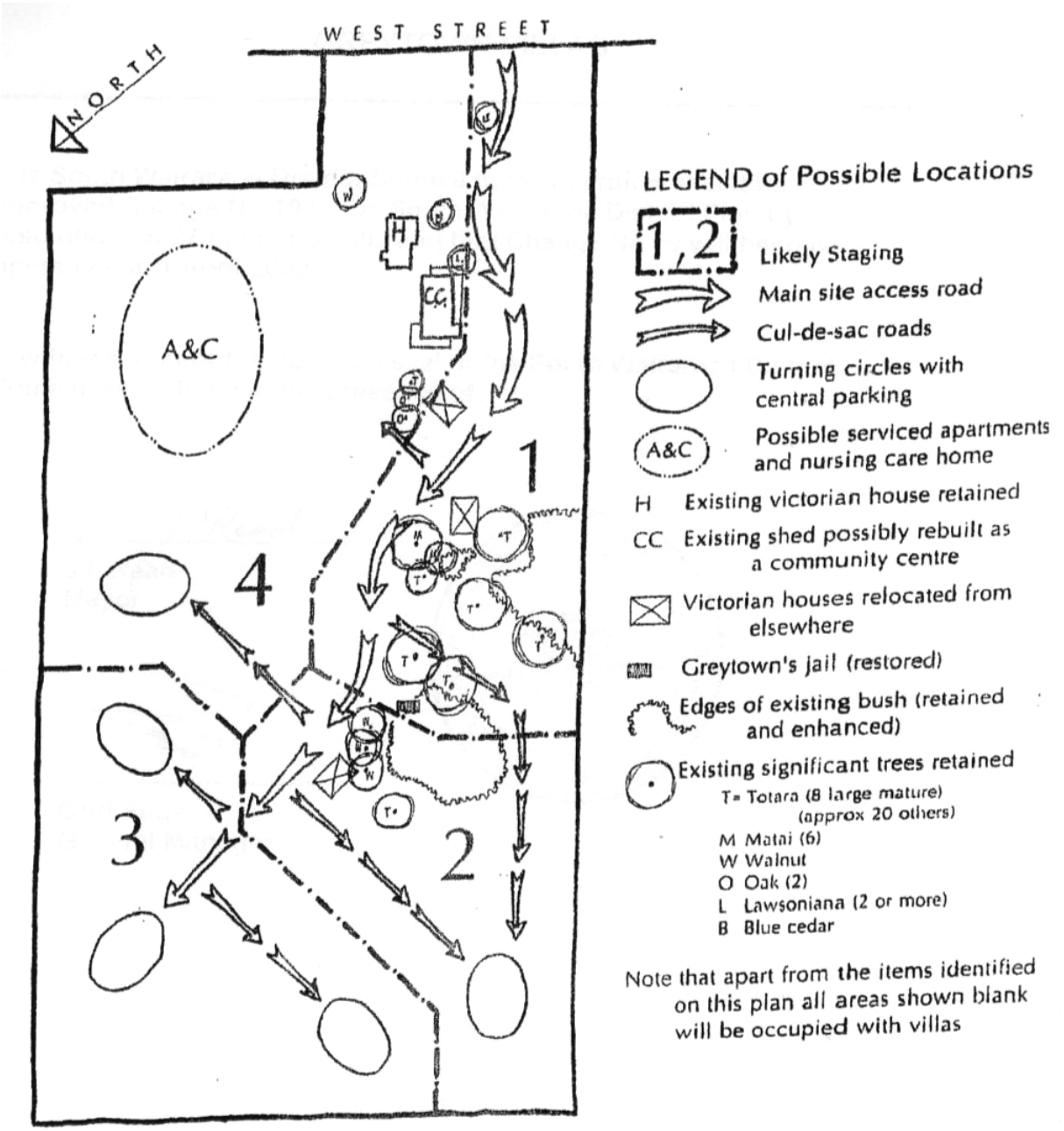


Do not destroy the roof form when extending into the roof space

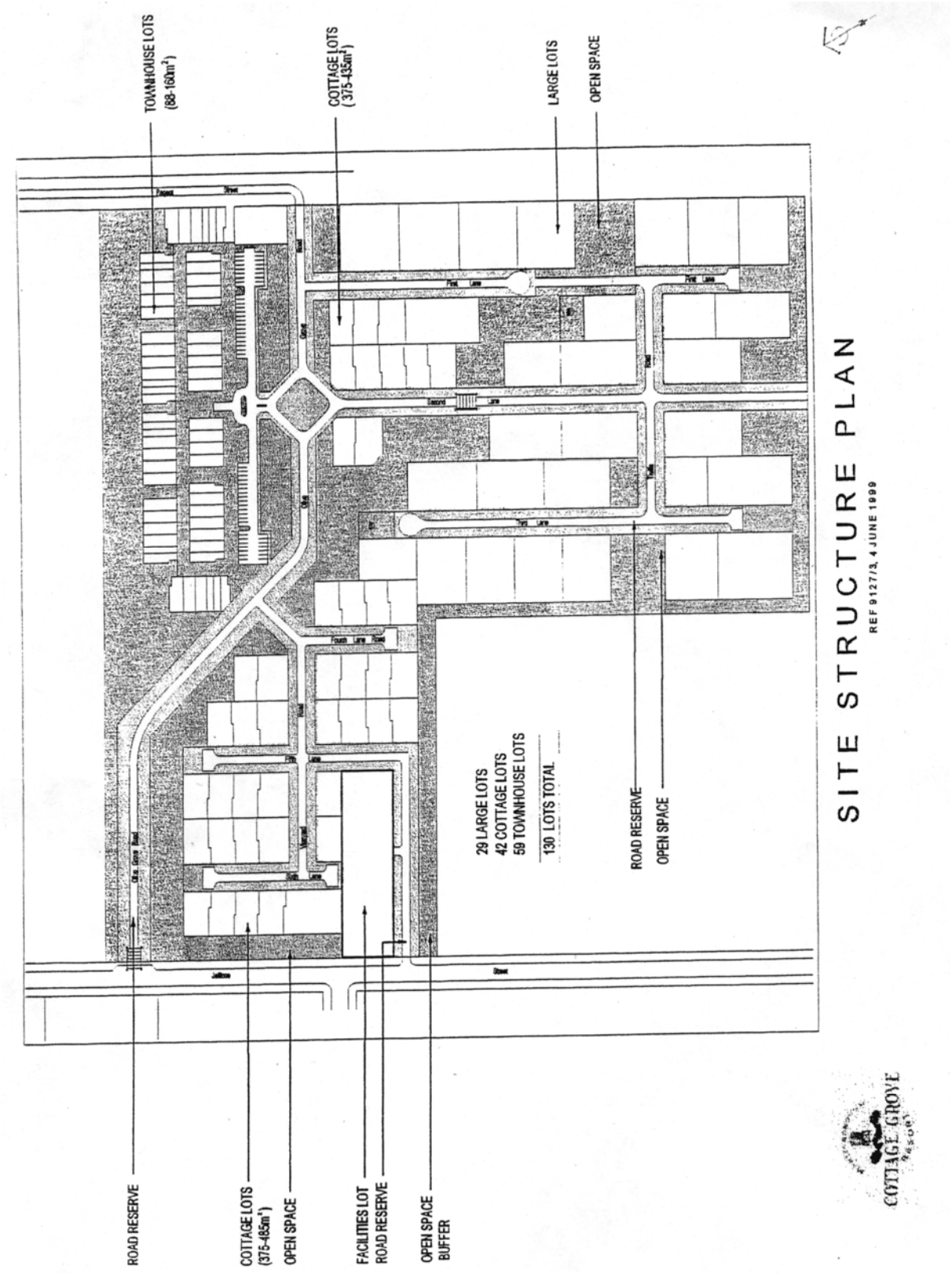
Re-use the original roof to add an extra storey

Use small dormer windows that enhance the roof form and building character

36 APPENDIX 9 – GREYTOWN VILLAS INDICATIVE CONCEPT PLAN



37 APPENDIX 10 – JELLICOE RESIDENTIAL CHARACTER AREA STRUCTURE PLAN



38 APPENDIX 11 – AIRPORT PROTECTION AREA

38.1 Obstacle Limitation Surfaces Specifications

38.1.1 Runway 06/24 – Paved

Runway 06/24	Existing Paved Runway Configuration (1250 x 23 m)		Future Configuration (1550 x 30m)	
Design Guidelines	AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.		AC 139-06A – Aerodrome Design – Aeroplanes above 5700 kg MCTOW.	
Design Basis	1. Fan geometry is based on Chapter 2 – Land aerodromes night operations or instrument runway. 2. The origin of both the take-off and approach fans is from the ends of the 1310 x 90 m strip as notified in the AIP.		1. Fan Geometry is based on Tables 4-1 (Approach Runway) and Table 4-2 (Take-off Runway) for a Code 3 Non-precision approach runway. 2. The paved runway is extended by 540m to provide a total runway length of 1,550m (300m longer than currently declared). The additional 240m is included to allow for a future RESA at the western end of the runway. 3. A 150m wide runway strip is assumed. 4. Only one surface is shown on the plan, which combines the most demanding geometrical constraints of the two fans.	
Geometry Take-off & Landing Fans	Length of inner edge:	90 m	Length of inner edge:	150m (approach/take-off)
	Distance from runway end/threshold:	30 m	Distance from runway end/threshold:	60m (approach/take-off)
	Divergence:	1:10	Divergence:	1:6.6 (approach)
	Final Width:	690 m	Final Width:	5,695 m (approach)
	Length:	3,000 m	Length:	15,000 m (approach/take-off)
	Slope:	1:40	Slope:	1:62.5 (take-off)
Transitional Side Surface	Slope upwards and outwards from the side of the runway strip at a slope of 1:5 to 10m height above the strip.		Originates from the side of the safeguarded 150m wide runway strip and slopes upwards and outwards at a gradient of 1:7 extending until it reaches the inner horizontal surface. The elevation at the side of the strip is equal to the elevation of the adjacent runway centreline.	
Inner Horizontal Surface	A surface located in a horizontal plane above the aerodrome and its environs. The surface is contained in a horizontal plane having its outer limits at a locus 2500m measured from the runway centre line. The plane is located 45m above the aerodrome or at an elevation of 148.7m.		A surface located in a horizontal plane above the aerodrome and its environs. The surface is contained in a horizontal plane having its outer limits at a locus 4000m measured from the periphery of the 150m safeguarded runway strip. The plane is located 45m above the aerodrome or at an elevation of 148.7m.	
Conical Surface	N/A		A surface sloping upwards and outwards from the periphery of the inner horizontal surface. The lower edge is coincident with the periphery of the inner horizontal surface and rises 150m above the aerodrome to an elevation of 253.68 m. It rises upwards and outwards from the periphery as a gradient of 1:20 (5%).	
Notes:	1. The origin of the take-off and landing fans are coincident as specified in the advisory circular, at the end of the runway strip.		1. Take-off and landing fans are coincident as it is assumed that there will not be displaced thresholds. 2. The 1:62.5 slope is the recommended safeguarded slope for new obstacles if no objects penetrate the 1:50 slope as per AC139-06A para 4.2.11	

38.1.2 Runway 10/28 – Grass

Runway 10/28	Existing Grass Runway Configuration (1042 x 30 m)		Future Configuration (1167 x 30m)	
Design Guidelines	AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.		AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.	
Design Basis	1. Fan geometry is based on Chapter 3 – Land aerodromes day VFR operations. 2. The origin of the fans is from the ends of the 1042 x 30 m grass runway as notified in the CAA AIP.		1. Fan geometry is based on Chapter 2 – Land aerodromes night operations or instrument runway. There is no intention to pave this grassed runway and it is assumed that it will be available for operations by aircraft below 5200 kg MCTOW only. 2. The grass runway is extended by 255 m to the south east at the 28 end but must be shortened by 130 m at the 10 end (refer to note 2 below). The total grassed runway length is therefore 1167m. 3. A 90 m wide runway strip is provided for night operations.	
Geometry	Length of inner edge:	30 m	Length of inner edge:	90 m
	Distance from runway end/threshold:	0m - from end of grass runway	Distance from runway end/threshold:	30 m
	Divergence:	1:20	Divergence:	1:10
	Final Width:	150 m	Final Width:	690 m
	Length:	1,200 m	Length:	3,000 m
	Slope:	1:20	Slope:	1:40
Transitional Side Surface	Slope upwards and outwards from the side of the runway strip at a slope of 1:4 to 2m height above the strip.		Slope upwards and outwards from the side of the runway strip at a slope of 1:5 to 10m height above the strip.	
Inner Horizontal Surface	N/A		A surface located in a horizontal plane above the aerodrome and its environs. The surface is contained in a horizontal plane having its outer limits at a locus 2500m measured from the runway centreline. The plane is located 45m above the aerodrome or at an elevation of 148.7m.	
Conical Surface	N/A		N/A	
Notes:	1. Take-off and landing fans are coincident as specified in the AC. 2. Thresholds are displaced as per the AIP 3. This runway is not available for night operations due to the lack of a 90m wide runway strip.		1.Take-off and landing fans are coincident as specified in the advisory circular, at the end of the runway strip located 30m from the end of the designated grassed runway surface. 2. In order to provide approximately 4.5 - 5.0 m of clearance over South Road as is provided with the existing runway configuration, the 10 end of the runway must be relocated 130m to the south east from its current location. 3. It would be possible to designate this runway for day operations only in which case the length of the runway would be (1042+255+30+30) 1357 m. The safeguarding fans are however less restrictive and it is therefore proposed that the fans for the scenario discussed above be designated in the district plan.	

38.1.3 Future Runway 14/32 – Grass

Runway 14/32	Future Grass Runway (500 x 30m)	
Design Guidelines	AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.	
Design Basis	1. Fan geometry is based on Chapter 3– Land aerodromes day VFR operations. 2. The origin of the fans is from the ends of the 500 x 30 m grass runway.	
Geometry	Length of inner edge:	30 m
	Distance from runway end:	0 m - from end of grass runway
	Divergence	1:20
	Final Width:	150 m
	Length:	1200 m
	Slope:	1:20
Notes:	1. This runway would not be available for night operations due to the lack of a 90 m wide runway strip. 2. Take-off and landing fans are coincident as specified in the AC. 3. Runway has been realigned from decommissioned Runway 15/33 to avoid the G/A and Vintage Aviation Precinct.	

38.1.4 Existing Runways 06/24 Northern Vector – Grass

Runway 06/24	Existing Grass Runway 06/24 Northern Vector (450 x 20m)		Future Configuration (1200 x 20m)	
Design Guidelines	AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.		AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.	
Design Basis	1. Fan geometry is based on Chapter 3– Land aerodromes day VFR operations. 2. The origin of the fans is from both ends of the 450m long grass runway as notified in the CAA AIP. The inner edge is 30m long which is the minimum recommended width.		1. Fan geometry is based on Chapter 3– Land aerodromes day VFR operations. 2. The runway is extended to 1200m in length. 3. The origin of the fans is from both ends of the 1060 x 30m grass runway.	
Geometry	Length of inner edge:	30m	Length of inner edge:	30 m
	Distance from runway end/threshold:	0 m - from end of grass runway	Distance from runway end/threshold:	0 m - from end of grass runway
	Divergence:	1:20	Divergence:	1:20
	Final Width:	150 m	Final Width:	150 m
	Length:	1200 m	Length:	1200 m
	Slope:	1:20	Slope:	1:20
Notes:	1. Take-off and landing fans are coincident as specified in the AC. 2. As noted in the AIP the use of this runway is "restricted to locally based operators only.		1. Take-off and landing fans are coincident as specified in the AC.	

38.1.5 Existing Runways 06/24 Southern Vector – Grass

Runway 06/24	Existing Grass Runway 06/24 Southern Vector (1060 x 30 m)	
Design Guidelines	AC 139-07A – Aerodrome Design – Aeroplanes at or below 5700 kg MCTOW.	
Design Basis	1. Fan geometry is based on Chapter 3– Land aerodromes day VFR operations. 2. The origin of the fans is from both ends of the 1060 x 30m grass runway as notified in the CAA AIP.	
Geometry	Length of inner edge:	30 m
	Distance from runway end/threshold:	0 m - from end of grass runway
	Divergence:	1:20
	Final Width:	150 m
	Length:	1200 m
	Slope:	1:20
Notes:	1. Take-off and landing fans are coincident as specified in the AC. 2. Thresholds are displaced at the 24 end as declared in the AIP	

39 APPENDIX 12 – WAINGAWA STRUCTURE PLAN